

AMENDMENTS TO THE CLAIMS

1-70. (Canceled)

71. (Previously Presented) The cordless soldering tool of claim 81, wherein, when the electrical switch is opened, electricity is not transmitted to the light.

72-75. (Canceled)

76. (Previously Presented) The cordless soldering tool according to claim 82, wherein the electrical power storage source is a battery.

77-80. (Canceled)

81. (Currently Amended) A cordless soldering tool comprising:
a handheld body adapted to house an electrical power storage source;
a detachable solder tip mounted on the handheld body and electrically connectable to the electrical power storage source, the detachable solder tip having first and second electrodes disposed in a spaced apart manner at the terminal end of the solder tip, such that a short is created across the first and second electrodes upon placement of an electrically conductive material external to the cordless soldering tool in electrical communication with the first and second electrodes to enable electrical current to flow through the detachable solder tip;

a light located on the handheld body, wherein the light is oriented such that the light can illuminate a working surface proximate the detachable solder tip; and

an electrical switch located on the handheld body, the electrical switch electrically connected between the detachable solder tip and the light and the electrical power storage source, the electrical switch capable of selectively powering the light without powering the solder tip for selectively powering the light without powering the detachable solder tip.

82. (Previously Presented) The cordless soldering tool of claim 81, further comprising an electrical power storage source.

83-85. (Canceled)

86. (Previously Presented) The cordless soldering tool of claim 81, wherein the detachable solder tip has an electrical resistivity of 1,500 micro-Ohm-cm or greater and a density of about 1.5 to 1.75 g/cc.

87. (Previously Presented) The cordless soldering tool of claim 86, wherein the detachable solder tip has an electrical resistivity of over 3,000 micro-Ohm-cm.

88. (Previously Presented) The cordless soldering tool of claim 86, wherein the detachable solder tip has a thermal conductivity of less than or equal to 10 BTU/hr-ft-°F.

89. (Previously Presented) The cordless soldering tool of claim 86, wherein the detachable solder tip includes a flexural strength of at least about 1,500 psi.

90. (Previously Presented) The cordless soldering tool of claim 89, wherein the detachable solder tip has a thermal conductivity of less than or equal to 10 BTU/hr-ft-°F.

91. (Previously Presented) The cordless soldering tool of claim 81, wherein the detachable solder tip comprises graphite.

92. (Currently Amended) A cordless soldering tool comprising:
a handheld body comprising a compartment for inserting a removable adapted to house an electrical power storage source within the handheld body;
a detachable solder tip mounted on the handheld body and electrically connectable to the electrical power storage source, the detachable solder tip having first and second electrodes disposed in a spaced apart manner at the terminal end of the detachable solder tip, such that a short is created across the first and second electrodes upon placement of an electrically conductive material external to the cordless soldering tool in electrical communication with the first and second electrodes to enable electrical current to flow through the detachable solder tip;

a light located on the handheld body, wherein the light is oriented such that the light can illuminate a working surface proximate the detachable solder tip; and

a user-operable switch mounted on the handheld body and electrically connected between the detachable solder tip and the light and the electrical power storage source, the user-operable switch capable of selectively powering the light without powering the detachable solder tip in series with the light so that the light and the user-operable switch are electrically connected in parallel with respect to the detachable solder tip.

93. (New) The soldering tool of Claim 81, wherein the detachable solder tip generates heat during the time that a short is created across the electrodes and cools when a short across the first and second electrodes is removed.

94. (New) The soldering tool of Claim 93, wherein the detachable solder tip can heat to 600°F.

95. (New) The soldering tool of Claim 81, wherein the electrically conductive material is solder.

96. (New) The soldering tool of Claim 92, wherein the detachable solder tip generates heat during the time that a short is created across the electrodes.

97. (New) The soldering tool of Claim 96, wherein the detachable solder tip cools when the short across the first and second electrodes is removed.

98. (New) The soldering tool of Claim 97, wherein the detachable solder tip can heat to 600°F.

99. (New) The soldering tool of Claim 92, wherein the electrically conductive material is solder.

100. (New) The soldering tool of Claim 92, further comprising an insulator disposed between the first and second electrodes.

101. (New) The soldering tool of Claim 92, wherein the light is a light emitting diode.